REMARKS

Claims 1-8 and 21-23 have been examined in this application. Claims 1 and 21-23 are independent. Claims 24 to 32 are new.

Statement of Substance of Interview

The Examiner is thanked for conducting the interview on April 5, 2005. Applicants believe that as a result of the interview, both Applicants and the Examiner have a better understanding of the differences, i.e., improvement, that the present invention exhibits over the prior art of record.

Applicants believe that the present claim amendments clarify the differences.

Rejection Under 35 U.S.C. § 102(b)

Claims 1-9 and 21-23 have been rejected under 35 U.S.C. §102(b) as being anticipated by Japanese Patent Number 2002-252290 to Iwata et al. (which is equivalent to U.S. Publication Number 2004/0115883, hereinafter "Iwata"). It is noted that claim 9 has been withdrawn.

The rejection is respectfully traversed.

Iwata

The Office Action states that Iwata teaches elements of claim 1 and particularly refers to paragraph 0155 for teaching aspects of the claimed "second material" that functions as a barrier against passage of electric charges.

Iwata's paragraph 0155 describes Fig. 1C and states,

> "Subsequently, through oxidation in an NO atmosphere at a temperature of 900 C, the surfaces of the first silicon particles 114 were oxidized, but crystalline silicon remained inside (Fig. 1C). The remaining first silicon particles 114 had a diameter of about 5 nm."

Applicants note at the outset, that Figure 1C, as described in paragraph 0155, pertains to an intermediate step in a manufacturing process. A resulting structure for the manufacturing process is shown, for example, in Figure 5A. In particular, the structure shown in Figure 5A shows a memory film produced by thermally oxidizing the first silicon particles 114 and second silicon particles 115 (para. 0162). The resulting memory film including the particles 114 and 115 is a silicon oxide 112B.

Applicants submit that in the thermally oxidizing approach to manufacturing disclosed in Iwata, the silicon oxide 112B, as shown for example in Figure 5A, had been formed by oxidizing polysilicon 113 and forming silicon oxide (Fig. 1C). In the later thermal oxidation process, silicon atoms of the oxidized polysilicon react with oxygen to form an oxide such that the oxides are mixed to form a single oxide film 112B. Thus, the resulting structure in Iwata is a single oxide film 112B (e.g., as shown in Figure 5A).

Additionally, the process step described in paragraph 0155 only oxidizes an upper surface side of particles exposed to the N_2O ambient.

In the present invention, on the other hand, two films, 810 and 825 (e.g., Figure 8A), are produced in order to electrically isolate particles 820 from each other and from the oxide film 825. As can be seen by comparing the final product shown in Figure 5A of Iwata and the final product shown in present Figure 8A, Iwata's final product does not include the cover 825.

In order to clarify the above stated distinguishing features of the claimed invention, an amendment has been made to each of the independent claims to recite "a cover, formed within the medium, that covers the at least one particle and is made of a second material."

Applicants submit that Iwata fails to teach at least the claimed "cover, formed within the medium, that covers the at least one particle" and is of a material that "functions as a barrier against passage of electric charges." For at least this reason, Applicants request reconsideration and withdrawal of the rejection.

New Claims

Dependent claims 24 to 32 have been added in order to recite further features of the invention of claim 1. Applicants submit that for at least the reasons in the above for claim 1, new claims 24 to 32 are patentable as well.

Conclusion

All objections and rejections raised in the Office Action having been addressed, it is respectfully submitted that the present application is in condition for allowance and such allowance is respectfully solicited. Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Robert Downs (Reg. No. 48,222), to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1. 17; particularly, extension of time fees.

Respectfully submitted,

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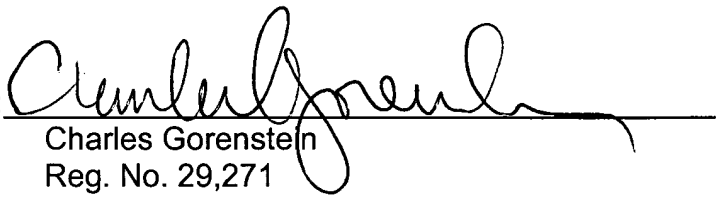
By: 
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